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EROSION-RESISTANT ALLOY

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[57] Abstract:

PURPOSE: To manufacture the erosion-resistant alloy having good erosion resistance and able to be coated on a titanium alloy by mixing ceramic powder with titanium material powder in a specified ratio, firing the mixture in vacuum and compacting it by hot isostatic pressing treatment. **CONSTITUTION:** A mixture constituted of, by volume, 20 to 60% ceramic powder and the balance substantial titanium or titanium alloy powder is prepd. Furthermore, as the ceramic powder, a titanium compound such as titanium carbide, titanium nitride, titanium boride, titanium oxide or the like is used, and as the titanium alloy powder, an $\alpha+\beta$ type titanium alloy such as a titanium-6% aluminum-4% vanadium (by weight) alloy or the like is used. Next, the mixture is fired in vacuum or an inert gas and is compacted by not isostatic pressing treatment. In this way, the erosion-resistant alloy having excellent erosion resistance and suitable to be coated on the leading ridge part of a steam turbine blade can be obtd. **COPYRIGHT:** (C)1991,JPO&Japio

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